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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,617	12/21/1999	Robert J. Munger	FS-00464	3841

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EXAMINER
CRAIG, DWIN M

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/468,617	Applicant(s) MUNGER ET AL.	
	Examiner Dwin M Craig	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-10 have been presented for reconsideration in light of Applicant's amended specification. Claims 1-10 have been reconsidered and rejected.

Response to Arguments

2. Applicant's arguments filed on 18 December 2002 have been fully considered. Examiners response is as follows:

Regarding Applicants remarks concerning the amended Claim language;

Applicant has argued that,

> Claims 1 - 10 remain active in this application. Claims 1 and 5 have been amended to improve form of claim land to include a recitation of claim 5, in a somewhat expanded form in the interest of clarity, to claim 1. Support for the amendments of the claims is found throughout the application, particularly in the description on pages 3 and 4 of the, specification as originally filed. No new matter has been introduced into the application.

The Examiner asserts that the changed Claim language in Claim 1 have narrowed the scope of that claim to a operator system interface simulator program that emulates the actual operator system interface but is separate from that actual operator system interface.

Regarding Applicant's remarks concerning the Examiner's Claim Interpretation;

Applicant has argued that,

> The Examiner has provided an explanation of claim language interpretation indicating that the phrase "effect a change in keysets or menus" refers to "the user being able to define hotkeys in the user interface". This claim language interpretation is respectfully traversed since the term "hotkey" or other forms of the term is not found in the asserted interpretation is thus seen to potentially trivialize the invention and to be an exercise in impermissible hindsight in tending to conform the Examiner's interpretation and understanding of the invention to more familiar, known arrangements which may have a function which is superficially similar in some respects to a result of the invention. Further, the asserted interpretation does not provide any definition of a "hotkey" which may or may not be a more or less colloquial expression for any of a number of programmable key arrangements in the Examiner's view.

Moreover, the interpretation asserted by the Examiner may also be vague in that it appears to possibly comprehend a single hotkey. It also appears, as will be discussed in greater detail below, that the Examiner has, through asserting the interpretation, disregarded the plain meaning of the language in question and disregarded other recitations of the claims entirely. Therefore, while it is conceded that the Examiner should give the claim language the broadest reasonable interpretation, such an interpretation should not trivialize the invention, construe the claims language through hindsight, conflict in any way with the plain meaning of the claim language or reduce weight accorded to any recitation of the claims. Accordingly, to clarify the record, reconsideration and withdrawal of the Examiner's statement interpreting the above-noted language is respectfully requested.

The Examiner asserts that according to the Microsoft Press Computer Dictionary *Microsoft Press 1997, page 237* the term *"Hot Key"* is defined as follows; A keystroke or combination of keystrokes that switches the user to a different program, often a terminate-and-stay-resident (TSR) program *or* the operating system user interface. The second definition of the term *"Hot Key"* in the Microsoft Press Computer Dictionary reads as follows; To Transfer to a different program by pressing a hot key. The Examiner asserts that these two definitions clearly disclose that a Hot Key is used to switch to a different program which can contain different functionality. It is well known in the art that a Hot Key or collection of Hot Keys can be used to initiate a collection of macros wherein different functionality within a program or a user interface can be provided ***(see Holtz et al. U.S. Patent 6,452,612 Figure 2A Item 205 and Figure 8)***. The Examiner respectfully maintains the previous Claim interpretation.

Regarding Applicant's remarks concerning the 35 U.S.C. 102(b) rejection of Claims 1-10 using the *Isreal et al. U.S. Patent 6,330,007* reference.

Applicant has argued that;

Claims 1 - 10 have been rejected under 35 U.S.C. §102 as being anticipated by Isreal et al. This ground of rejection is respectfully traversed as

being clearly in error and which is respectfully submitted to be even more clear in view of the above amendments.

Specifically, Isreal et al. is directed to the provision of additional arrangements in a functional software system to allow prototyping on that system while it is running. However, the arrangement of Isreal et al. does not address the issue of providing simulation and/or prototyping of an operator interface system where running of the operator interface system, itself, would be prohibitively expensive for such purposes, either because of the cost of operation of the computer on which it is run or the need for operation of other expensive machinery while the operator interface system is being run. In fact, at the present time, as discussed in the present application, both conditions may be presented, for example, in complex computer systems used for avionics in aircraft which also effectively prohibit any possibility of ambiguity in control functions being prototyped.

It is this latter function, in particular, which is addressed by the present invention. Specifically, the invention provides for the operator interface system to be defined in definitional tables and generating an operator interface simulator program from these definitional tables which allows effecting of changes in the operator interface system, precisely as recited in the claims as originally filed. Therefore, the invention, as originally claimed provides a simulator for the operator interface which does not require running the operator interface itself as is required in the arrangement of Isreal et al. Therefore, it is clear that Isreal et al. does not anticipate and claim in the application since it does not teach (or suggest) the generation of an operator interface simulator program based on the definitional tables, much less generating a simulator program having the functions recited in the claims as filed.

These features of the present invention support the function of allowing the simulator program to be run on a much less expensive processor and avoiding any need for operation of any other equipment concurrently with running such a processor. That is, the invention, as originally claimed allows simulation on, for example, a stand-alone personal computer or laptop. Prototyping, which can be an extensive and time consuming operation involving a large number of prospective users can also be performed in the same manner and at similarly low cost and high convenience. Further, when corresponding changes are made in the definitional tables corresponding to the prototyping modifications, as now recited in claim 1, the prototyping of the original system is facilitated at reduced cost since the modified definitional tables can be simply loaded into the operator interface system, itself.

In other words, it is believed that the language of the claims, as filed, clearly required a simulator program distinct from the operator system itself since it is recited as being generated and forming a representation of the operator system interface defined by the definitional tables and this recitation is not answered by the prototyping add-on (which allows a function somewhat similar to programming of hotkeys) for the operator interface system itself as presented in Isreal et al., possibly due to the improper interpretation of other claim language as discussed above. Accordingly, it is seen that no prima facie demonstration of anticipation of any claim in this application has been made and it is respectfully submitted that the stated ground of rejection is not only in error as to the claims as originally filed but clearly untenable in regard to the claims as amended. Accordingly, reconsideration and withdrawal of the stated ground of rejection based on Isreal et al. is respectfully requested.

The Examiner asserts that the *Isreal et al.* reference does not disclose running a simulator program distinct from the operator system itself as is disclosed in Applicant's amended Claims, however the examiner does upholds that this reference does disclose all of the earlier claimed limitations. The Examiner withdraws the original 35 U.S.C. 102 (e) rejections of Claims 1 and 5 due to Applicant's amended Claim language.

The Examiner asserts that due to Applicant's amended Claims the scope of the original Claim language has been broadened. An updated search has revealed new art.

Claim Interpretation

3. Claim 1 has been given the broadest interpretation by the examiner. For purposes of examination the examiner has determined that the phrase "effect a change in keysets or menus" refers to the user being able to define programmable hotkeys in the user interface. ***(see Holtz et al. U.S. Patent 6,452,612 Figure 2A Item 205 and Figure 8).***

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-10** are being rejected under 35 U.S.C. 103(a) over **Isreal et al. U.S. Patent 6,330,007** in view of **Klein et al. U.S. Patent 5,768,567.**

4.1 As regards **Claim 1** the *Isreal et al.* reference discloses, a method for programming an operator system interface with a simulator **Col. 2, Lines 12-26.** comprising the steps of: providing definitional tables for an operator system interface, wherein said tables define specific governing attributes of said operator system interface; **Col. 2, Lines 27-39.** Generating a simulated operator system interface simulator program, wherein when the simulator program is run on a computing device, it displays a representation of the operator system interface defined by the definitional tables input in the providing step, **Col. 2, Lines 22-26.** and allows a user to select components of the interface, **Col. 2, Lines 27-39.** using a pointing device, **Col. 5, Lines 42-54.** in order to view information about the selected component on a display device or to effect a change in keysets or menus. **Col. 2, Lines 41-56.**

However the *Isreal et al.* reference does not expressly disclose an operator system interface simulator program distinct from said operator system interface.

The *Klein et al.* reference discloses an operator system interface simulator program distinct from said operator system interface **(Figures 2, 3, Col. 1 Lines 64-67, Col. 2 Lines 1-16).**

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the *Isreal et al.* reference with the *Klein et al.* reference because *(motivation to combine)* by simulating the hardware in software the designers can develop the software for embedded systems in a timely manner without having to wait until the embedded hardware is available for software development ***(Klein et al. Col. 1 Lines 65-67, Col. 2 Lines 1-16).***

4.2 As regards **Claim 2** see *Isreal et al.* - **Figure 3,** and **Col. 8, Lines 45-62.**

4.3 As regards **Claim 3** see *Isreal et al.* - **Figures 7-9, 15-17, 30-33** and **Col. 2, Lines 22-26.**

4.4 As regards **Claim 4** see *Isreal et al.* - **Figure 2B.**

4.5 As regards **Claim 5** *Isreal et al.* discloses, **Col. 2, Lines 27-40.**

4.6 As regards **Claim 6** *Isreal et al.* discloses, **Col. 4, Lines 40-67 and Col. 5, Lines 1-18.**

4.7 As regards **Claim 7** *Isreal et al.* discloses, **Col. 4, Lines 40-67 and Col. 5, Lines 1-18. and Figure(s) 2A,2B and 3.**

4.8 As regards **Claim 8** see *Isreal et al.* - **Figure 1.**

4.9 As regards **Claim 9** *Isreal et al.* discloses, **Col. 2, Lines 12-28.**

4.10 As regards **Claim 10** *Isreal et al.* discloses, **Col. 2, Lines 12-28.**

Conclusion

5.

5.1 The Examiner withdraws his original 35 U.S.C. 102(e) rejection of Claims 1-10. I view of Applicant's amended Claims and Examiners updated search a new rejection under 35 U.S.C. 103 has been applied to Claims 1-10. Due to the new scope of the claims as a result of Applicant's amended claim language this action is made **FINAL.**

5.2 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M Craig whose telephone number is 703 305-7150. The examiner can normally be reached on 9:00 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3900.

DMC
February 24, 2003

Russell Frejd

RUSSELL FREJD
PRIMARY EXAMINER